



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,673	09/15/2003	Masaaki Matsushita	03500.01553.1	9141
5514	7590	04/17/2006	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			DIAMOND, ALAN D	
			ART UNIT	PAPER NUMBER
			1753	

DATE MAILED: 04/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/661,673	MATSUSHITA ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Alan Diamond	1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on February 8 and 15, 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 39-46 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 39-46 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 15 September 2003 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. 09/893,639.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Comments***

1. The Examiner acknowledges that claims 25-34 have been cancelled.
2. The certified English translation (filed February 15, 2006) of the instant Japanese foreign priority document fully supports instant claims 39-46. Accordingly, JP 2001-85716 can no longer be used as a reference against these claims.

**DETAILED ACTION**

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 39-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 5-91681 (JP '681) in view of JP 4-27812 (JP '812).

JP '681 teaches a method of controlling a photovoltaic power generation system (see the entire document). With respect to instant claims 39 and 43, the only required steps in the instant process are measuring output signals from the plurality of sensors, and normalizing the values of output signals. The instant third and further steps are done when Ax is larger than a reference value S. Thus, when Ax is smaller than S, no calculating of value D is performed, and thus, no fourth step is performed. JP '681 corresponds to the situation where Ax is smaller than S. As seen in Figure 1, JP '681 has plural sensors (12, 13), i.e., a humidity detecting means (12) and light detecting means (13), around a solar cell module, i.e. around solar cell string (11). JP '681's

photovoltaic power generation system structure further includes a short circuit switch (see Figure 11).

With respect to claims 40, 41, 44, and 45, these claims are further limiting features that are not required components in the claims 39 and 43.

JP '681 teaches the limitations of the instant claims, other than the differences which are discussed below.

JP '681 does not specifically teach normalizing the values of the output values from its sensors. JP '812 teaches a solar sensor comprising plural photosensors, i.e., solar cells (as in instant claims 42 and 46), wherein the output values of the photosensors are normalized, and the direction of the sun can be detected (see the entire document). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the solar sensor of JP '812 with the solar cell power supply of JP '681 so that the sun could be followed. This provides the well known benefit that the sun can be followed so that JP '681's solar cell string (11) could be maintained perpendicular to the sun.

JP '812 does not specifically teach connecting plural of its power supplies, and thus, connecting plural solar cell strings, as in instant claim 43. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have connected plural of JP '812's power supplies in series so that a desired voltage could be obtained.

### ***Response to Arguments***

5. Applicant's arguments have been considered but are moot in view of the new ground of rejection.

***Allowable Subject Matter***

6. The Examiner would be willing to allow claims 39-46 if the following changes are made to claims 39 and 43. In claim 39, at line 2, change "comprising a solar cell string" to -- comprising a first step of providing a solar cell string --. In claim 39, at line 5, delete ", the method comprising". In claim 39, at line 6, change "first" to -- second --. In claim 39, at line 7, change "second" to -- third--. In claim 39, at line 7, after "signals," insert the following new step -- a fourth step of comparing the normalized output signal values to a reference value S --. In claim 39, at line 8, change "third" to --fifth --. In claim 39, at line 10, change "a reference" to -- the reference --. In claim 39, at line 14, change "fourth" to -- sixth --. In claim 43, at line 2, change "comprising a plurality of solar cell strings" to -- comprising a first step of providing a plurality of solar cell strings - -. In claim 43, at line 6, delete ", the method comprising". In claim 43, at line 8, change "first" to -- second --. In claim 39, at line 9, change "second" to -- third--. In claim 43, at line 9, after "signals," and before the word "and" insert the following new step -- a fourth step of comparing the normalized output signal values to a reference value S --. In claim 43, at line 10, change "third" to --fifth --. In claim 43, at line 12, change "a reference" to -- the reference --. In claim 43, at line 16, change "fourth" to -- sixth --.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Diamond whose telephone number is 571-272-

1338. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alan Diamond  
Primary Examiner  
Art Unit 1753

Alan Diamond  
April 13, 2006

